

ABSTRACT

Provided is an analyte monitoring device having a housing, the device comprising: a plurality of needles, each having a tip, a retracted position, a position wherein the tip is
5 extended from the housing a distance adapted to pierce skin; an electrically or spring
powered needle pushing apparatus movable to separately engage each of the needles to
move each from the retracted position to the extended position; an energy source located
within the housing; a plurality of analysis sites comprising an analysis preparation, each
adapted to receive liquid from the needles to wet the analysis preparation; one or more
10 light sources adapted to direct light at the analysis sites; one or more light detectors
adapted to receive light from the analysis sites; and a processor.